

REMARKS

Claims 1-4 and 7-40 are pending in the application. Claims 1, 3, 26, 29, 32, 34 and 38 are being amended. Claims 7-11 are being cancelled. No new matter is being introduced by way of the amendments.

In Part 2 of the Office Action, the Examiner states that the title of the invention is not descriptive. The title of the invention is "Method and Apparatus for Automatic Network Address Assignment." Applicants believe this issue was resolved in the previous Amendment filed April 6, 2005. That is, in the previous Amendment, Applicants stated in the Remarks that the preamble of Claim 1 recites "[a] method for automatically assigning a network address to a given network node" Similar descriptions are used in the other independent claim preambles. Accordingly, in view of the limitations in the independent claims, Applicants believe that the title of the invention is indicative of the invention to which the claims are directed and, therefore, respectfully request that the objection to the title be withdrawn.

In Part 3 of the Office Action, the Examiner states the specification should be proofread to be reviewed for errors. Applicants, in preparation for the Amendment filed April 6, 2005, reviewed the whole of the application for typographical errors, accuracy, assurance of proper use for trademarks, and other legal symbols. Applicants believe that the amendments made to the specification in the previous Amendment reflect all changes needed to comply with the request. Therefore, Applicants respectfully request the objection be withdrawn.

In Parts 4-7 of the Office Action, the Examiner has rejected Claims 1-4 and 7-40 under 35 U.S.C. 112, second paragraph. The Examiner specifically rejects Claims 1, 3, 7, 26, 32, 34 and 38. Applicants thank Examiner for the suggestions for these claims within parts 4-7 of the Office Action.

With regard to the rejections of Claims 1, 26, 32, 34 and 38, Applicants have amended these claims to comply with 35 U.S.C. 112, second paragraph. Specifically, Claims 1, 26, 32, 34 and 38 were edited to correct a lack of antecedent basis. Accordingly, Applicants respectfully request the rejections be withdrawn.

With regard to the rejection of Claim 3, Claim 3 has been rewritten to more distinctly point out the invention. Claim 3, as amended, now recites:

The method according to Claim 2, wherein the step of determining includes building a list of network addresses by adding the known network addresses and network addresses included in the inter-node communication packets that may be undetermined network addresses observing the network addresses in ARP request messages in the communication packets.

Support for this claim amendment can be found in the specification as originally filed at least at page 5, lines 7-19.

With regard to the rejection of Claim 7, Applicants have cancelled Claim 7 in the current amendment. Therefore, the rejection of Claim 7 is now moot.

In Part 7 of the Office Action, Claim 29 has been rejected under 35 U.S.C. 112, paragraph 2. Specifically, the Office Action states Claim 29 describes packets in a way in which the scope is not clearly ascertainable. Applicants have amended Claim 29 to now recite, "issue network packets including network packets with address information for posing as a network node having an IP address external from the subnet to the interface." Applicants believe the scope of the packets described in Claim 29, as amended, is now clearly ascertainable.

Based on the foregoing remarks, Applicants believe the rejections of Claims 1-4 and 7-40, as described, under 35 U.S.C. 112, second paragraph to be overcome. No new matter is being introduced by way of the amendments.

In Part 8 of the Office Action, Claims 7-11 were rejected under 35 U.S.C. 112, fourth paragraph, in addition to second paragraph. Specifically, the Office Action states that Claims 7-11 depend from cancelled Claim 6. In response to the Examiner's rejection, Applicants have cancelled Claims 7-11 without prejudice. Applicants now believe this rejection under 35 U.S.C. 112 to be overcome.

In Parts 9-12 of the Office Action, Claims 1-4 and 7-40 were rejected under 35 U.S.C. 102(e) as being anticipated by Reed et al. (6,061,739) hereafter ("Reed").

In response to Applicants' arguments made in the previous Amendment filed April 6, 2005, part 13a of the present Office Action provides that Reed teaches masking the subnet and, as such, is posing on an external subnet. Specifically, the Office Action cites col. 3, lines 32-38 of Reed which states, in part, the following:

For example, in addition to an IP address a DHCP message can contain a subnet mask. Second, DHCP provides a dynamic address allocation mechanism. Whenever a new device connects to the network, it connects a DHCP server that maintains a set of IP addresses. The DHCP server chooses one of the addresses and then allocates the address to the device. (col. 3, lines 32-38).

A DHCP protocol allows a computer to inquire all the configuration information it needs in a single message, for example. In addition to an IP address, a DHCP message can contain a subnet mask. DHCP also allows a computer to obtain an IP address quickly and dynamically. To use DHCP's (as dynamic address allocation mechanisms), a manager must configure a DHCP server by supplying a set of IP addresses. A DHCP client will then negotiate the use of an address by exchanging messages with a server. In the exchange, the server provides an address for the client, and the client verifies that it accepts the address. Once a client has accepted an address, it can begin to use that address for communication. In this way, DHCP can dynamically provide dynamic address allocation using the configuration within the protocol. DHCP does not, however, use configuration information, such as a subnet mask to pose as a device having an IP address external from the subnet; rather, the configuration information is used only to acquire dynamic address allocations. See Networking with TCP/IP Volume 1, p. 372 first paragraph, p. 373 first paragraph, a copy of which is being filed herewith in a Supplemental Information Disclosure Statement.

In compliance with the DHCP protocol, Reed simply monitors communications on the network for a specified number of unanswered address resolution protocol (ARP) packets. Thereafter, a device monitoring the communication adopts the network address in the unanswered ARP packets and responds to the unanswered ARP packets with its physical address. See Reed's Abstract, Summary, and col. 4, lines 19-39. Reed's Fig. 1, as compared to Applicants' Fig. 1, does not include a representation of a node "posing as a node having an IP address external from the subnet," where the subnet in Reed's Fig. 1 is indicated by reference number 18. Further, the use of the subnet mask of Reed's within the DHCP message is used for the purpose of configuration. This is unlike Applicants' claimed invention which uses a subnet mask to pose as a node having an IP address external from that subnet.

Therefore, Applicants respectfully submit that Reed does not disclose every limitation of Claim 1 ("posing as a node having an IP address external from the subnet"). Accordingly, Applicants respectfully submit that the rejections of claim 1 under 35 U.S.C. 102(e) as being anticipated by Reed should be withdrawn.

Because dependent claims 2-4 and 11-25 depend from claim 1, these claims should be allowed for at least the same reasons.

Independent claims 29, 34, and 38 have similar limitations as claim 1 and should be allowed under 35 U.S.C. 102(e) for similar reasons.

Because claims 30, 31, 35-37, 39 and 40 depend from these independent claims, Applicants respectfully submit that the rejections under 35 U.S.C. 102(e) should be withdrawn for at least the same reasons.

With regard to claim 26, the Office Action states, in part 13b of the Office Action, that "a node in the subnet could obtain a permanent address from a second node as covered in the Abstract, col. 1 (lines 30-67, "encapsulating" "MAC address", things akin to a subnet and not the Internet exc [sic]...); and as such, a device, not yet with a permanent address, can pose as one with such to obtain such from another node as claimed." Applicants believe that Reed is not applicable to this rejection for the following reasons: (1) Claim 26 does not relate to posing as a node on a subnet, and (2) Reed does not disclose a network node in a local subnet that determines an available subnet configuration then accesses a network node outside the local subnet for an available permanent configuration.

With regard to reason (1), the Office Action takes a position that "a device, not yet with a permanent address, can pose as one with such to obtain such from another node as claimed." However, Claim 26 is not directed to posing as a node on a subnet for the purpose of obtaining a network configuration. Rather, Applicants' claim 26 recites,

determining an available local subnet configuration by a first network node in a local subnet; accessing a second network node located outside the local subnet for an available permanent network configuration; and assigning the available permanent network configuration to the first node.

With regard to reason (2), Reed discloses only that a network node monitors communications on a network and determines an unused network address based on observations of unanswered ARP packets. Reed does not disclose a network node in a local subnet that determines an available subnet

configuration then accesses a network node outside the local subnet for an available permanent configuration. Applicants note that a DHCP server provides a network address to a network node, but the network node does not itself determine an available local network configuration then access the DHCP server for a permanent network configuration.

Accordingly, Applicants respectfully submit that claim 26 distinguishes over Reed and should be allowed under 35 U.S.C. 102(e).

Independent claim 32 includes similar limitations as claim 26 and should be allowed for similar reasons.

Claims 27, and 28 depend from claim 26, and claim 33 depends from claim 32. Therefore, these claims should be allowed for at least the same reasons as the independent claims from which they depend.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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